Kansas Department of Agriculture
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Plant Disease in Kansas

May 10, 2006
Report 3, Volume 32

HIGHLIGHTS

Wheat viral disease is epidemic in portions of central and western Kansas. Loss in yield will exceed over fifty per cent in some counties.

Leaf rust of wheat is scattered around central and western Kansas at trace levels.

In retail outlets, hosta virus x and daylily rust continue to be found in several retail outlets in eastern Kansas.

OUTLOOK

Wheat viral disease will continue to be a problem as symptoms develop in northern counties.

Cool cloudy weather continues to dominate weather conditions. This weather is favorable to powdery mildews infecting several species of plants including wheat, rose, grapes, and various tree species.

Retail Outlets

Day lily rust and hosta virus x continue to be the primary disease problems seen in retail outlets. Inspections were conducted in the Kansas City area this past week. (S. White and J. Appel, KDA). Hosta virus x has again been reported in about 1 out of 3 locations

with at least one variety showing strong symptoms. These symptoms vary from puckering of leaves to color breaking and mosaic.

Fig. 1. Color breaking symptom of hosta virus x on hosta leaf.

Other diseases noted during inspections of greenhouse and retail outlets included Impatiens necrotic spot virus of impatiens and damping off of various bedding plants (B. Hilbert, KDA). *Psuedomonas* bacterial blight of lilac was also noted during an inspection.

WHEAT

The worst epidemic of wheat streak mosaic for years is present in the western half of Kansas at present.

Below is a text of an email received this week from a family in western Kansas to Secretary Adrian Polansky, Kansas Department of Agriculture:

Secretary Polansky and staff :

Just wanted to alert you that what the drought has not taken, wheat streak mosaic has. In the last one to two weeks, wsm is at epidemic proportions and there is nothing we can do for it. I am getting reports of it from all over---Ulysses to Hays to Cimarron. No till continuous is getting hit exceptionally hard. Many of these fields will not even head out. Vance, my husband, says “I have never seen a wheat streak mosaic infection this extensive."

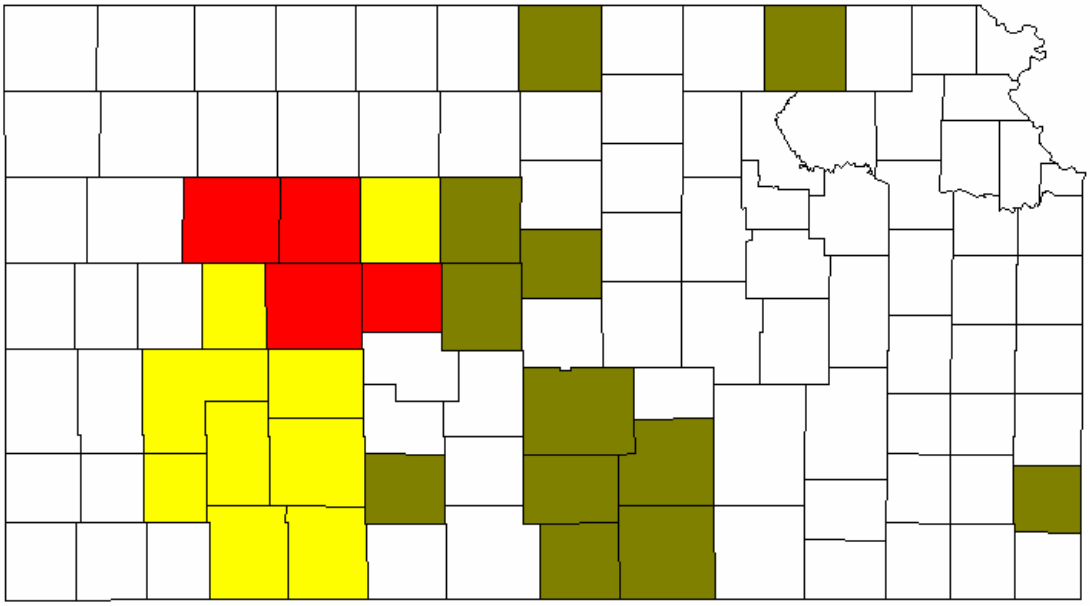
Sincerely,

L. Ehmke
Lane Co. Kansas

This is not an overstatement. Last week survey was conducted in counties in central, west central and southwest Kansas (J. Appel). Incidences of wheat streak mosaic were extremely high from 70 -100 percent and common to nearly all fields in counties such as Gove (WC), Trego (WC), Rush (C), and Ness (C). In other counties such as Ellis and Barton in central Kansas and the southwest counties of Hodgeman, Finney, Haskell, Meade, Gray, and Clark the incidence from one field to another was not as complete as the above named

counties but still had numerous fields with severe infection. As in the email from Lane County stated, many fields were not going to head out. With the price of fuel and the expectation of little or no yield, farmers are filing crop insurance claims for salvation from the epidemic in the hard hit areas. The final numbers are yet to come in but losses will be felt throughout those local economies as the crop fails to come in.

Fig 2. Wheat in Trego County with wheat streak mosaic, plants should be headed out.



WHEAT STREAK LOSS ESTIMATES MAY 5, 2006

Counties in red have severe infection and yields will be reduced dramatically by 50-75% for the area.
Counties in yellow have moderate to heavy infection with yield reduction in the 15-25% range for the area.
Counties in olive have reports but yield loss estimates have not been made.

Samples were collected in occasional fields and submitted to the Great Plains Diagnostic Clinic at KSU for confirmation of wheat streak mosaic. In those samples all were positive for wheat streak

mosaic but about 1/3 had other viral problems which included soil borne mosaic, high plains virus, and American wheat striate mosaic (J. Pierzynski and J. O'Mara, KSU). Oklahoma and Texas panhandle production areas are also reporting widespread outbreak but primarily of the high plains virus.

In other reports, barley yellow dwarf in some southeastern fields is especially severe (D. Jardine, KSU extension). Foliar disease is breaking out in the area with powdery mildew, speckled leaf blotch, leaf rust, tan spot, and stripe rust reports. All reported to be low in severity at this point. Leaf rust reports of trace amounts were made west central Kansas in survey also.